

## CLAIMS

1. A light source unit, which emits a plurality of light beams with different wavelengths along the same optical path, comprising at least a plurality of light emitting devices and a plurality of dichroic mirrors that are different in wavelength range of a reflectible light beam,

wherein the number of the plurality of dichroic mirrors is equal to the number of the plurality of light emitting devices,

the plurality of light emitting devices are arranged so that output directions of the respective light emitting devices may be in parallel,

the plurality of dichroic mirrors are arranged so that each of the dichroic mirrors can reflect one of emitted light beams that are emitted by the plurality of light emitting devices, and light beams reflected by the respective dichroic mirrors may pass through the same optical path in the same direction.

2. The light source unit according to Claim 1, wherein the plurality of light emitting devices are different in wavelength of an emitted light beam, and are arranged in order of wavelength of the emitted light beam.

3. A photoreceptive unit, which receives a plurality of incident light beams with different wavelengths that enter along the same optical path, comprising at least a plurality of photoreceptors and a plurality of dichroic mirrors that are different in wavelength range of a reflectible light beam,

wherein the number of the plurality of dichroic mirrors is equal to the number of the plurality of photoreceptors,

the plurality of photoreceptors are arranged so that photoreceptive surfaces of the respective photoreceptors may be in parallel to each other, and

the plurality of dichroic mirrors are arranged so that each of the

incident light beams may be reflected by any one of the dichroic mirrors and may enter one of the plurality of photoreceptors, according to the wavelength of the incident light beam.

- 5     4.     A multichannel photodetector, comprising at least a reaction container, a light source unit that emits a plurality of light beams with different wavelengths along the same optical path so as to allow the plurality of light beams to enter the reaction container, and a photoreceptive unit that receives light beams output from an inside of the reaction  
10 container,

          wherein the light source unit comprises at least a plurality of light emitting devices and a plurality of output dichroic mirrors that are different in wavelength range of a reflectible light beam, the number of the plurality of output dichroic mirrors is equal to the number of the plurality of light  
15 emitting devices, the plurality of light emitting devices are arranged so that output directions of the respective light emitting devices may be in parallel, the plurality of output dichroic mirrors are arranged so that each of the output dichroic mirrors can reflect one of light beams emitted by the plurality of light emitting devices, and light beams reflected by the  
20 respective output dichroic mirrors may pass through the same optical path in the same direction, and

          the photoreceptive unit comprises at least a plurality of photoreceptors and a plurality of photoreceptive dichroic mirrors that are different in wavelength range of a reflectible light beam, the number of the  
25 plurality of photoreceptive dichroic mirrors is equal to the number of the plurality of photoreceptors, the plurality of photoreceptors are arranged so that photoreceptive surfaces of the respective photoreceptors may be in parallel to each other, and the plurality of photoreceptive dichroic mirrors are arranged so that each of the light beams output from the inside of the  
30 reaction container may be reflected by any one of the photoreceptive dichroic

mirrors and may enter one of the plurality of photoreceptors, according to a wavelength of the light beam.

5. The multichannel photodetector according to Claim 4, wherein the  
5 plurality of light emitting devices are different in wavelength of the emitted light beam, and are arranged in order of wavelength of the emitted light beam.
6. The multichannel photodetector according to Claim 4,  
10 wherein a mixture that contains at least a sample as a target of measurement and fluorochrome is added in the inside of the reaction container, and  
the light beams output from the inside of the reaction container are  
fluorescence of the fluorochrome excited by the light beams emitted by the  
15 light source unit.